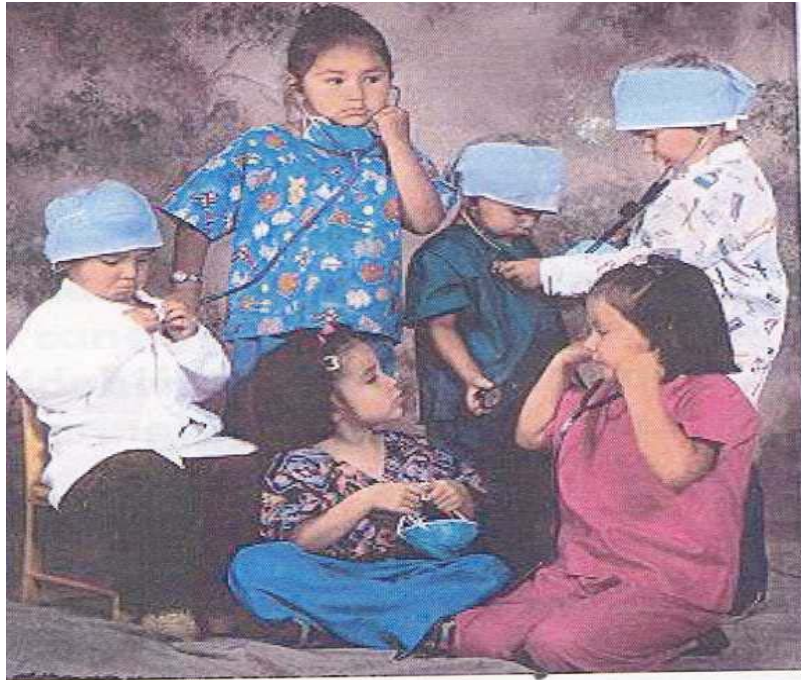


# Diabetes Education in Tribal Schools



**Clayton Gopher, Amanda Gopher, Kendel Windy Boy, Slayte Duran, Madeline Gardipee, Angel Windy Boy**



# Diabetes based Science Education in Native American Schools (K-12)

## Background

- Diabetes was rare among American Indian and Alaska Native peoples until about 50 years ago, but has now become one of the most common and serious illnesses in Tribal Nations of North America.
- The prevalence of diabetes is at least three times (10.9%) that for non-Hispanic whites (3.9%).
- The prevalence rates vary by Tribal Nations, rising to 15.9% among the Plains Tribes (CDC, 1998).
- Type 2 diabetes, typically considered an adult disorder, is now emerging in all populations of youth in the U.S., including American Indian/Alaska Native communities.



# Purpose

Develop and implement a school-based diabetes curriculum that supports the integration of American Indian/Alaska Native culture and community knowledge with diabetes-related science.



## Goal 1:

Increase the understanding of health, diabetes, and how to maintain balance in American Indian / Alaska Native children, their families, and their communities.



## Goal 1: Elements of Enduring Understanding

- A. Health is life in balance
- B. Diabetes is an imbalance of health at many levels
- C. Certain risk factors and imbalances contribute to the likelihood of diabetes
- D. Individuals, families, and communities can work together to maintain health and balance



## Goal 2:

Increase K-12 American Indian/  
Alaska Native students'  
understanding and appreciation of  
the process of developing  
scientific and community  
knowledge in relationship to  
health, diabetes, and maintaining  
balance.



## Goal 2: Elements of Enduring Understanding

- A. Understanding about health incorporates individual, family, community, and science knowledge that has developed and expanded over time
- B. Understanding about diabetes incorporates individual, family, community, and science knowledge that has developed and expanded over time
- C. Understanding about maintaining balance and enhancing health incorporates individual, family, community, and science knowledge that has developed and expanded over time



### Goal 3:

Improve attitudes toward and interest in entering health science professions among American Indian /Alaska Native children through understanding how diabetes-related biomedical professionals work with communities and enhance health.





## Goal 3: Elements of Enduring Understanding

- A. Individuals, families, and communities use science and medicine to enhance their health
- B. Scientists and health professionals working with communities conduct research to create new science and medical knowledge
- C. Scientists and health professionals apply knowledge to enhance health in communities



## Goal 3: Elements of Enduring Understanding

- D. All students are able to create and apply new science, medical, and community knowledge to their health and to choose diabetes-related careers
- E. Individuals, families, and communities benefit from students' learning science, medicine, and health knowledge, and from pursuing careers in diabetes related fields



# Diabetes Education Standards and Benchmarks

- Grades K-12 in scope
- Sequentially oriented to build upon grade level science content
- Developmentally appropriate
- Focuses on diabetes prevention concepts and physiology of diabetes



## Curriculum Focus

- Aligned with national and state teaching standards and benchmarks
- Culturally sensitive teaching materials designed to enhance the understanding, attitudes, and knowledge levels of students in grades K-12
- Hands-on, science based materials that reflect traditional learning styles emphasizing visual, spatial and perceptual modes of learning



- Evaluation tools for pre and post-testing for determining the progress, attitude change and knowledge increase in students
- Partnering with local school districts who serve AI/AN students in on and/or off reservation schools
- Curricular components are sensitive to regional/tribal cultural concerns
- The final product will be easily adaptable to any K-12 school district



# Diabetes Based Science Education in Tribal Schools (DETS) Tribal Colleges and Universities



- Cankdeska Cikana Community College,  
Fort Totten, North Dakota
- Fort Peck Community College,  
Poplar, Montana
- Haskell Indian Nations University,  
Lawrence, Kansas
- Keweenaw Bay Ojibwa Community  
College, Baraga, Michigan
- Leech Lake Tribal College,  
Cass Lake, Minnesota
- Northwest Indian College,  
Bellingham, Washington
- Southwestern Indian Polytechnic  
Institute,  
Albuquerque, New Mexico
- Stone Child College,  
Box Elder, Montana

## Curriculum Focus

The DETS Steering Committee agreed to break into three grade specific levels for better coverage of the curriculum development.

**K-4:** Keweenaw Bay Ojibwa Community College, Fort Peck Community College, Haskell Indian Nations University, and Northwest Indian College.

**5-8:** Stone Child College, Southwestern Indian Polytechnic Institute, and Leech Lake Tribal College.

**9-12:** Cankdeska Cikana Community College, Keweenaw Bay Ojibwa Community College, Northwest Indian College, and Leech Lake Tribal College.

